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providing a microfluidic device fabricated on a substrate, the device comprising, a source of hydrostatic pressure joined at a common junction to the microscale chromatography column, and a fluid flow channel intersecting the common junction and in fluid communication with the chromatography column;

flushing the chromatography column with a flow of a buffer solution;

stopping the flow of buffer solution;

flowing a fluid to be analyzed through the flow channel; and applying a hydraulic pressure to a portion of the fluid, thereby injecting the portion into the chromatography column.

- 14. The method of claim 13, wherein said step of flowing is accomplished by a pressure-driven sample injector.
- 15. The method of claim 13, wherein said step of applying a hydraulic pressure is accomplished by an electrokinetic pump.

## REMARKS

This is a divisional application presenting claims from Group II (Claim 8) of the originally filed application and new claims 13-15 for examination.

Support for new claims 13-15 can be found throughout the specification of the invention and drawing and particularly at pp. 4-8. No new matter has been added.